

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

TWINSTRAND BIOSCIENCES, INC. &  
UNIVERSITY OF WASHINGTON,

Plaintiffs,

v.

GUARDANT HEALTH, INC.,

Defendant.

C.A. No. 21-1126-GBW-SRF

**PUBLIC VERSION OF D.I. 492  
FILED: DECEMBER 7, 2023**

**DEFENDANT GUARDANT HEALTH INC.'S BRIEF IN SUPPORT OF ITS MOTION  
FOR JUDGMENT AS A MATTER OF LAW PURSUANT TO  
FEDERAL RULE OF CIVIL PROCEDURE 50(a)**

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## **I. NATURE AND STAGE OF THE PROCEEDINGS**

Defendant Guardant Health, Inc. (“Guardant”) is the defendant in a patent infringement action brought by Plaintiffs TwinStrand Biosciences, Inc. and University of Washington (collectively, “TwinStrand”). Trial in this action began on November 6, 2023, and is scheduled to conclude on November 15, 2023. D.I. 463. Guardant orally moved for judgment as a matter of law (“JMOL”) following the conclusion of the evidence on November 14, 2023. Trial Transcript Day 4 at 118:2-3.<sup>1</sup> Although the Court denied Guardant’s oral motion, Guardant submits this brief to provide a record of the grounds for its motion.

## **II. SUMMARY OF THE ARGUMENT**

JMOL under Rule 50(a) should be entered because: (1) Plaintiffs TwinStrand Biosciences, Inc. and University of Washington (collectively, “TwinStrand”) failed to present legally sufficient evidence that Guardant infringes any claim of the asserted patents because Guardant does not practice any of the bioinformatics steps in the asserted claims—much less all of them in the required order for any claim; (2) Even if the individual claim elements could be met, there is no legally sufficient evidence that Guardant performs these steps in the order required by this Court’s claim constructions; (3) In addition to the above deficiencies in its attempt to prove infringement for all Guardant products and services, TwinStrand’s own expert admitted that TwinStrand could not prove that the Guardant services (Companion and Explore) infringe any claim of the asserted patents; (4) TwinStrand failed to present legally sufficient evidence that any infringement was willful; (5) TwinStrand failed to present legally sufficient evidence to support its claim for damages.

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<sup>1</sup> All cites to the Trial Transcript herein are referred to as “Tr.”

### III. LEGAL STANDARD

JMOL for the movant is appropriate if “the court finds that a reasonable jury would not have legally sufficient evidentiary basis to find for the [non-moving] party on that issue.” Fed. R. Civ. P. 50(a); *see also Rego v. ARC Water Treatment Co. of Pa.*, 181 F.3d 396, 400 (3d Cir. 1999); *Energy Trans. Grp., Inc. v. Sonic Innovations, Inc.*, No. 05-CV-00422-GMS, 2011 WL 2222066, at \*2 (D. Del. June 7, 2011), *aff’d*, 697 F.3d 1342 (Fed. Cir. 2012).

### IV. TWINSTRAND FAILED TO PROVE INFRINGEMENT OF ANY ASSERTED CLAIM<sup>2</sup>

There is no legally sufficient evidence of infringement as to any accused product or service. Here, all three asserted claims are method claims. TwinStrand therefore needed to prove that Guardant practiced each and every step of the claimed method—including in any required order imposed by this Court’s claim constructions. *See Finjan, Inc. v. Secure Comp. Corp.*, 626 F.3d 1197, 1206 (Fed. Cir. 2010) (“To infringe a method claim, a person must have practiced all steps of the claimed method.”); *Mformation Techs., Inc. v. Rsch. in Motion Ltd.*, 764 F.3d 1392, 1399-1400 (Fed. Cir. 2014) (affirming grant of JMOL of no infringement where patentee failed to prove that defendants performed steps in the order required by the claims). But TwinStrand failed to adduce enough evidence to allow a reasonable jury to conclude that TwinStrand had met this burden.

In short, TwinStrand failed to prove: (1) that Guardant practiced any (much less all) of the bioinformatics steps of the claimed methods; and (2) for the steps that must be performed in a particular order under this Court’s claim constructions, that Guardant practiced those steps in the required order. TwinStrand’s failure of proof encompasses all accused Guardant products and

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<sup>2</sup> The facts relevant to Guardant’s arguments are included in this and the following argument sections. Thus, Guardant did not include a separate statement of facts.

services. Further, with respect to the accused Guardant services, TwinStrand’s expert’s unequivocal admission that the use of those services cannot infringe the patents especially warrants entry of JMOL on the services before the case goes to the jury.

**A. TwinStrand Lacks Substantial Evidence for Any of the Bioinformatics Steps of the Claimed Methods.**

TwinStrand failed to prove, as required for infringement, that Guardant practices all steps of the claimed methods. In fact, TwinStrand lacks substantial evidence that Guardant’s use of the accused products and services meets *any* of the “bioinformatics” limitations. TwinStrand’s attempt to cobble together a case instead relied on the wrong processes, the improper mixing and matching of product and process evidence, the mischaracterization of documents, and the omission of essential information. Guardant’s witnesses, by contrast, explained how the accused products actually work—including a detailed explanation by the Guardant engineer who

This contrast goes far beyond a credibility battle that is ordinarily the jury’s province. Rather, TwinStrand’s attempt to prove its case cannot withstand the objective, indisputable facts supplied by the source code and other relevant documents in this case. JMOL is therefore appropriate.

Each asserted claim requires the performance of a series of bioinformatics steps after performance of the ligation/attachment, amplification, and sequencing steps. For claim one of U.S. Patent No. 10,287,631 (“the ’631 patent”), the verbs that begin each of the bioinformatics steps are: (1) “grouping”; (2) “separating”; (3) “confirming”; (4) “comparing”; (5) “identifying” (twice); (6) “generating.” For claims 24 and 30 of U.S. Patent No. 10,760,127 (“the ’127 patent”), the verbs are: (1) “grouping”; (2) “collapsing”; (3) “comparing”; and (4) “analyzing.” The evidence does not show that Guardant performs *any* of these steps—and only *one* missing step is enough to negate infringement for each asserted claim. *See Lincoln Nat. Life Ins. Co. v.*

*Transamerica Life Ins. Co.*, 609 F.3d 1364, 1370, 95 USPQ2d (Fed. Cir. 2010) (reversing denial of motion for a JMOL of no infringement where defendant’s computerized system did not perform a step of the asserted patent claim’s computerized method).

For example, there is no substantial evidence that Guardant practices the “grouping” limitation of any asserted claim. As Guardant’s Senior Staff Bioinformatics Scientist, Dr. Marcin Sikora, explained, [REDACTED] Tr. Day 3 at 785:25-786:5; *see also* JTX-019 at 33 (showing [REDACTED]). Instead, as Dr. Sikora explained, [REDACTED] Tr. Day 3 at 771:10-15; *accord* Tr. Day 3 at 780:21-781:7. These facts are undisputed because the only source code that TwinStrand’s technical expert, Dr. Pachter, relied on merely demonstrates [REDACTED]. *See* JTX-009 at lines 147-228. This source code does not show grouping “based on the SMI sequence alone or in combination with the target nucleic acid fragment ends” (’631 patent claim 1) or “based on i) the barcode sequence and ii) DNA fragment-specific information” (’127 patent claims 24 and 26). TwinStrand’s inability to establish this claim limitation is by itself grounds for JMOL of non-infringement.

There is also no substantial evidence that Guardant practices the “comparing” limitation of any asserted claim. The record established that Guardant

*See, e.g.*, JTX-141 at 9; JTX-009 at lines 2324-2374; Tr. Day 3 at 807:21-24 (Dr. Sikora [REDACTED]); Tr. Day 3 at 805:25-806:11 (Dr. Sikora [REDACTED])



[REDACTED]); Tr. Day 4 at 903:7-11 (Dr. Prabhu t [REDACTED]);  
[REDACTED]); Tr. Day 4 at 907:19-21 (same).

TwinStrand's failure of proof likewise extends to all other steps of the claimed methods. As to the '631 patent's "separating" step, Drs. Sikora and Prabhu [REDACTED]  
[REDACTED] Tr. Day 3 at 797:14-18, 827:1-20; Tr. Day 4 at 907:16-18. This fact is undisputed because the source code on which Dr. Pachter relied [REDACTED] PTX-049.0004; *see also* Tr. Day 3 at 782:8-10 (Dr. Sikora [REDACTED]  
[REDACTED]); Tr. Day 4 at 895:2-7 (Dr. Prabhu [REDACTED]  
[REDACTED]). The defects in TwinStrand's proof on the "comparing" step likewise extend to the "identifying" and "generating" steps of the '631 patent. And for similar reasons, there can be no infringement of the "collapsing" and "analyzing" steps of the '127 patent.

Because the record lacks substantial evidence of infringement, JMOL is warranted now.

**B. TwinStrand Lacks Substantial Evidence that Guardant Practices the Bioinformatics Steps in the Order Required by This Court's Constructions.**

Even if TwinStrand could prove that Guardant practiced each individual step of the claimed methods (it cannot), it still has no substantial evidence that Guardant performed them in the order required by the claims as construed by the Court. *See Mformation*, 764 F.3d at 1399-1400. This is another independent ground for JMOL of non-infringement.

The Court's claim construction requires that "[s]ome, but not all of the steps of claim 1 of the '631 patent must be performed in the order recited in the claims." As relevant to the bioinformatics steps, "the 'comparing' step must precede the 'identifying' steps, which must precede the 'generating' step." D.I. 475, 490. The Court further ordered: "Iterative or

simultaneous performance is within the scope of the claims, provided that the steps listed above are performed in the order recited. But the ‘grouping,’ ‘separating,’ and ‘confirming’ steps may be performed in any order, and the two ‘identifying’ steps may be performed in either order.” *Id.* The Court construed claim 22 of the ’127 patent, from which asserted claims 24 and 30 depend, to require: “All the steps of claim 22 of the ’127 patent must be performed in order. Iterative or simultaneous performance is within the scope of the claims, provided that the steps are performed in the order recited.” *Id.*

For the ’631 patent, even if Guardant’s fundamentally different process were somehow deemed to include all claimed steps, there is still no evidence that any acts that might be deemed to constitute the “comparing,” “identifying,” and “generating” proceed in the required order. Among other deficiencies, Dr. Pachter did not point to any portion of Guardant’s source code that would perform these steps in the required order. *See, e.g.*, Tr. Day 2 at 169:9-24, 205:19-206:3 ([REDACTED]); Tr. Day 2 at 266:25-268:17 ([REDACTED]); *see also* Tr. Day 3 at 783:7-784:2 (Dr. Sikora [REDACTED] [REDACTED] [REDACTED]); Tr. Day 4 at 905:4-16 (Dr. Prabhu [REDACTED] [REDACTED]).

For the ’127 patent, even if Guardant’s fundamentally different process were somehow deemed to include all claimed steps, there is still no evidence that those steps are performed in the order that the claims require. Among other deficiencies, Dr. Pachter did not point to any portion of Guardant’s source code that would perform these steps in the required order. *See* Tr. Day 2 at 169:9-24 (Dr. Pachter [REDACTED]);

Tr. Day 4 at 905:25-906:15; *see also* record cites in preceding paragraph. And as Dr.

Quackenbush testified, [REDACTED]

[REDACTED]  
[REDACTED] See Tr. Day 4 at 979:12-980:8.

**C. TwinStrand’s Expert’s Admission that the Guardant Services Do Not Infringe Also Warrants JMOL on the Services at the Rule 50(a) Stage.**

As shown above, JMOL is appropriate for all Guardant products and services on all asserted claims. There is an additional reason why JMOL should be entered under Rule 50(a) for the Guardant services: TwinStrand’s expert admitted they do not infringe even under TwinStrand’s own theories of infringement. TwinStrand cannot give any legitimate reason why these admittedly non-infringing services or Guardant’s accused revenues from them should remain in the case. The Guardant services (Companion and Explore) therefore should be removed from the case—on both liability and damages—before it goes to the jury.

**1. JMOL of No Liability on the Guardant Services Should Be Entered.**

At the outset of his testimony, Dr. Pachter proclaimed, “I found that all of these products *and services* infringed on these claims.” Tr. Day 2 at 107:12-13 (emphasis added). TwinStrand then tried to lump the products and services together in Dr. Pachter’s testimony on infringement issues. *E.g.*, Tr. Day 2 at 126:9-127:10, 131:15-19. When asked on direct why he thought the services infringe, Dr. Pachter replied: [REDACTED]

[REDACTED] Tr. Day 2 at 134:9-15 (emphasis added).

Other than by repeatedly continuing to lump products and services together in a generic and conclusory fashion (*e.g.*, Tr. Day 2 at 206:6-12), Dr. Pachter did *not* testify that the use of the

services themselves practices all the limitations of any claimed method. Even when asked on direct about [REDACTED]

[REDACTED] Tr. Day 2 at 136:16-25 (emphasis added).

But eventually on cross, Dr. Pachter expressly admitted that the Guardant services are non-infringing. *See* Tr. Day 2 at 248:15-255:16. Dr. Pachter first tried to duck the issue by repeating his mantra that the services are included because they use the output of the Guardant products. *See, e.g.*, Tr. Day 2 at 249:22-23 ([REDACTED]

[REDACTED]), 250:20-22 (“[REDACTED]

[REDACTED] (emphasis added)). But then he acknowledged that t

Tr. Day 2 at 253:4-21.

Dr. Pachter finally gave up the ghost with an explicit admission of the fact—implicit in his testimony all along—that the use of the Guardant services is not itself infringement:

[REDACTED]

[REDACTED]

Tr. Day 2 at 254:24-255:16.

Guardant engineer Dr. Marcin Sikora confirmed this undisputed fact when he testified that [REDACTED]

[REDACTED]  
[REDACTED]. Tr. Day 3 at 760:7-14; *see also* Tr. Day 3 at 854:1-6 (Dr. Sikora testifying [REDACTED]

[REDACTED]). No witness testified, either directly or in substance, that the Guardant services themselves perform the steps of the claimed method (much less all of them and in the required order).

With no contrary evidence in the record, Dr. Pachter's clear admission that the Guardant services are non-infringing is dispositive here. JMOL of no liability should be entered under Rule 50(a) at least with respect to the Guardant services.

Entry of JMOL of no liability on the services is a straightforward application of the rule that infringement of a method claim requires the practice of all steps of the claimed method. *See Finjan*, 626 F.3d at 1206; *Mformation*, 764 F.3d at 1399-1400. Further, Dr. Pachter's admission makes this case analogous to *ParkerVision v. Qualcomm*, where the district court granted defendant Qualcomm's motion for JMOL of no infringement based on adverse admissions by the plaintiff's expert. 27 F. Supp. 3d 1266, 1281-85 (M.D. Fl. 2014). "Through largely leading questions on direct examination," plaintiff's counsel "initially testified" that the asserted claims were infringed. *Id.* at 1281. The expert's "direct and redirect testimony," however, was "notably vague when it came" to a certain disputed limitation. *Id.* at 1283. On cross-examination, counsel for defendant elicited "unequivocal" testimony indicating that the limitation was not present in the accused devices. *Id.* The district court held that the "concessions during cross-

examination as well as [the expert’s] direct testimony [were] fatal to ParkerVision’s infringement case” and granted defendant’s JMOL. *Id.* Noting the inconsistencies in the expert’s testimony, the Federal Circuit affirmed. *See ParkerVision, Inc. v. Qualcomm Inc.*, 621 F. App’x 1009, 1014 (Fed. Cir. 2015). The propriety of JMOL is equally clear—if not clearer—for the Guardant services here.

Under similar circumstances in *Johns Hopkins University v. Datascope*, the Federal Circuit reversed a district court’s denial of a defendant’s motion for JMOL of no infringement. 543 F.3d 1342 (Fed. Cir. 2008). At trial, the plaintiff’s expert had offered an infringement opinion during direct examination that did not squarely address the claim limitation, and then offered “contradictory testimony” on cross-examination that clearly favored a finding of noninfringement. *Id.* at 1348-49. Reviewing the evidence, the Federal Circuit found the expert’s direct examination testimony “incredible” in light of the admissions on cross-examination, “because it is impossible for use of [the accused] device to meet” the asserted claim limitation. *Id.* The Federal Circuit held that “[t]he district court’s denial of JMOL on the issue of infringement was, therefore, in error.” *Id.*

In sum, TwinStrand’s expert did not even try to show that the Guardant services practice the claimed methods. He finally admitted that they do not. And there is no contrary evidence in the record. JMOL of no liability on the services is thus warranted.

## **2. The Accused Guardant Services Revenue Should Be Removed from TwinStrand’s Asserted Royalty Base.**

The undisputed absence of infringement also means that all revenue from sales of the Guardant services must be excluded from the damages base. Where, as here, “the only asserted claim[s] [are] method claim[s], the damages base should be limited to products that were *actually used to perform the claimed method.*” *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*,

30 F.4th 1339, 1357 (Fed. Cir. 2022); *see also Cyntec Co., Ltd. v. Chilisin Elecs. Corp.*, 84 F.4th 979, 988-89 (Fed. Cir. 2023) (citing *Niazi* to hold that the district court abused its discretion by not excluding an expert damages opinion that included sales of non-infringing products and services and failed to account for them). “The royalty base for reasonable royalty damages cannot include activities that do not constitute patent infringement, as patent damages are limited to those ‘adequate to compensate for the infringement.’” *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1343 (Fed. Cir. 2015) (quoting 35 U.S.C. § 284).

The testimony of TwinStrand’s damages expert, Dr. McDuff, cements the need to exclude these revenues as a matter of law. Dr. McDuff relied solely on Dr. Pachter’s direct examination testimony to justify his inclusion of services revenue in the royalty base. Tr. Day 3 at 613:17-21 ( [REDACTED]

[REDACTED]). On cross, Dr. McDuff was confronted with Dr. Pachter’s subsequent admission that the services do not infringe. Tr. Day 3 at 660:6-662:19. Dr. McDuff confirmed once more that he was relying solely on Dr. Pachter’s testimony on this issue. Tr. Day 3 at 661:23-662:4. After trying to dodge the elephant in the room, Dr. McDuff finally admitted that the services revenue would need to be removed from the royalty base if the services were found not to infringe. Tr. Day 3 at 662:5-21. And, as shown above, the fact that the services do not infringe is precisely what Dr. Pachter expressly admitted.

Dr. McDuff did not offer any other theory under which the accused services revenue could properly be included in the royalty base. Nor did he testify that sales of these services were relevant to the royalty *rate*. Even if he had, such testimony still would not justify inclusion

of the services revenue in the royalty *base*. On this record, the accused services revenue has no proper place in the evaluation of damages.

In addition to the clarity of the law and record on this issue, there are practical reasons to resolve it now under Rule 50(a). Allowing TwinStrand to ask the jury for damages on the admittedly non-infringing services would unfairly prejudice Guardant and complicate post-trial review of any adverse judgment. The Federal Circuit has repeatedly warned, in the context of apportionment, that the presentation of an inflated royalty base “cannot help but skew the damages horizon for the jury.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011). The same is true here, where the inflation would stem from the improper inclusion of non-infringing services in the royalty base. The accused service revenue—\$106.6 million—is less than 10% of TwinStrand’s proposed \$1.39 billion royalty base, but excluding it would still somewhat reduce the horizon-skewing problem. In addition, resolving this issue now will reduce the permutations that the Court and parties may need to confront if TwinStrand prevails on liability and recovers non-zero damages. Depending on the damages outcome, the issue might need to be addressed by offering TwinStrand the choice of a remittitur or new trial. It is also possible that it would be too speculative to reduce the damages award by an amount certain to eliminate the royalty on non-infringing services. In that case, a new trial would be the only available remedial tool, even if the remainder of the verdict is left intact.

TwinStrand’s inclusion of the admittedly non-infringing services in its liability and damages cases presents problems that can and should be solved before the jury hears closing arguments and deliberates. JMOL should be granted on the entire case for the reasons given in the prior section, which of course would obviate the issues specific to the services. But even if



TwinStrand's case on the Guardant products will proceed to the jury, the Guardant services should be eliminated from the case now.

## **V. TWINSTRAND FAILED TO PROVE WILLFULNESS**

Even if the liability case proceeds, a partial JMOL still should be granted on willfulness. Willfulness requires “deliberate or intentional” infringement, and there is no such evidence in the record. It is undisputed that Guardant knew of the asserted patents when they issued, but that alone cannot support taking a willfulness claim to the jury. *See Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 988 (Fed. Cir. 2021) (“Knowledge of the asserted patent and evidence of infringement is necessary, but not sufficient, for a finding of willfulness.”). The vague testimony of Plaintiffs’ witness, Dr. Pachter, that Guardant somehow copied Plaintiffs’ claimed method via an article published seven years before the issuance of the first asserted patent is not substantial evidence from which willfulness can be reasonably inferred.

Nor is there any other evidence that can support a reasonable verdict of willfulness. “To establish willfulness, the patentee must show the accused infringer had a specific intent to infringe at the time of the challenged conduct,” and must do so by a preponderance of the evidence. *Bayer*, 989 F.3d at 987; *SRI Int’l, Inc. v. Cisco Sys., Inc.*, 14 F.4th 1323, 1330 (Fed. Cir. 2021) (willfulness under *Halo* requires proof of “‘deliberate or intentional infringement’”); *see also Eko Brands, LLC v. Adrian Rivera Maynez Enters., Inc.*, 946 F.3d 1367, 1378 (Fed. Cir. 2020). “[P]re-issuance conduct [is] irrelevant to the issue of willful infringement.” *MasterObjects, Inc. v. Google, Inc.*, No. 11-CV-01054-PJH, 2013 WL 12177460, at \*1 (N.D. Cal. May 2, 2013). Because the record lacks such evidence, JMOL of no willfulness is appropriate now.

**A. TwinStrand Lacks Substantial Evidence of Copying.**

The centerpiece of TwinStrand’s willfulness case was its attempt to show that “Guardant has copied the University of Washington technology.” Tr. Day 2 at 107:16-18. Yet Dr. Pachter admitted he never even compared the asserted patent claims to the 2012 Schmitt article that was allegedly copied. Tr. Day 2 at 230:19-24. For this reason alone, TwinStrand’s incendiary allegations of copying are unsupported and should not be allowed to infect the jury’s deliberations. Rather, the copying issue should be removed from the case under Rule 50(a) now.

TwinStrand’s “copying” allegations focus on the 2012 Schmitt article. Tr. Day 2 at 230:5-6. TwinStrand does not, and cannot plausibly, allege that Guardant copied the asserted patents or even their patent applications. Tr. Day 2 at 229:21-230:4. The asserted patents issued in 2019 and 2020, and TwinStrand points to events in 2012 to allege copying. A party, of course, cannot willfully infringe a claim before it issues. *See Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F. 2d 508, 510 (Fed. Cir. 1990). Further, pre-patent-issuance conduct has limited relevance in determining willfulness. *See Bioverativ Inc. v. CSL Behring LLC*, No. 17-CV-914-RGA, 2020 WL 1332921, at \*2 (D. Del. Mar. 23, 2020).

The only evidence to which TwinStrand and its expert points for this alleged copying of the Schmitt article is two Guardant 2012 emails sharing the Schmitt article (PTX 147 & JTX 061) and two experiments in a Guardant lab notebook (JTX 067) from 2012 that [REDACTED]. Tr. Day 2 at 2343:20. However, the evidence presented at trial established two undisputed facts that defeat Plaintiffs’ argument.

First, the [REDACTED]. *See* JTX 067 ([REDACTED]); Tr. Day 2 at 236:21-238:14.

Second, the Guardant [REDACTED]

[REDACTED]. Tr. Day 2 at 231:18-232:4, Tr. Day 3 at 1034:13-16. Copying of the bioinformatics steps, of course, would be essential to any copying of the invention. There is no evidence that Guardant experimented with the Schmitt article's method in connection with a bioinformatic pipeline. Tr. Day 2 at 232:5-7. And there is no evidence of Guardant [REDACTED]. [REDACTED]. Tr. Day 2 at 238:9-14.

Moreover, Guardant [REDACTED], as disclosed in the Schmitt article, into any Guardant product. It is undisputed that Guardant uses

Additionally, Plaintiffs failed to provide evidence that the Schmitt article embodied the claims of the Asserted Patents. Plaintiffs' expert, Dr. Pachter, testified that the Schmitt article and the asserted patents are not the same thing. Tr. Day 2 at 230:12-18. As a result, the evidence cannot rise to the level of "egregious behavior" required to allow pre-patent issuance behavior to support willfulness. *Sonos, Inc. v. D&M Holdings Inc.*, No. 14-CV-01330-WCB, 2017 WL 5633204, at \*4 (D. Del. Nov. 21, 2017) (Purported evidence of willfulness during the period before the issuance of the patent or patents at issue must demonstrate "particularly egregious behavior."). Plaintiffs are not even saying that Guardant copied the asserted patents, or any product that allegedly embodies the claimed invention, but rather can only point to an article regarding related subject matter. Especially given the complexity of the technology at issue in this case, mere related subject matter falls short of the required nexus.

Further, it is undisputed that [REDACTED]

[REDACTED]. Tr. Day 3 at 758-59 [Sikora]. Thus, [REDACTED]

[REDACTED]. Tr. Day 3 758-759, [Sikora]. And because the asserted patents did not issue until

2019 and 2020, [REDACTED].

Tr. Day 3 at 758-59 [Sikora]. For all these reasons, no reasonable jury could find in Plaintiffs' favor based on its flawed "copying" story.

**B. No Other Substantial Evidence Supports Willfulness.**

The remainder of TwinStrand's willfulness case has no support in the trial record either. TwinStrand assails the fact that Guardant sought to negotiate a license to the asserted patents over several years while they were still in the application stage. But Guardant's witnesses consistently testified that they did not believe their existing products and services used TwinStrand's technology, and there is no contrary evidence of their belief. *See, e.g.*, Tr. Day 3 at 707:5-25, 729:19-21, 749:18-23; Tr. Day 4 at 1037:6-25. Rather, the record uniformly reflects that (1)

, (2) Guardant's accused products (including the Guardant360 product that was launched in 2014) were developed without reference to TwinStrand's technology, and (3)

. None of this evidence can support a reasonable inference of willfulness. TwinStrand's nefarious and speculation is not enough to get to the jury on this issue. Rather, the presence of these incendiary, yet unsupported, allegations is precisely why willfulness should be removed from the case before the jury deliberates.

**VI. TWINSTRAND FAILED TO PROVE ANY ENTITLEMENT TO DAMAGES**

**A. TwinStrand's Economic Contribution Analysis Is Unreliable.**

Dr. McDuff's "economic contribution" theory cannot support any damages award because it is insufficiently tied to "the facts of the case at issue." *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011). It reflects no reliable apportionment of Guardant's revenues to the value of the patented invention. *See Commonwealth Sci. & Indus. Rsch. Org. v.*

*Cisco Sys., Inc.*, 809 F.3d 1295, 1301 (Fed. Cir. 2015); *Exmark Mfg. Co. v. Briggs & Stratton Power Prod. Grp., LLC*, 879 F.3d 1332, 1348 (Fed. Cir. 2018).

To avoid repetition, Guardant incorporates by reference the *Daubert* arguments it made on the unreliability of this prong of Dr. McDuff’s analysis. *See* D.I. 341 at 33-40, 43-44; D.I. 402 at 17-20. The same reliability problems identified at the *Daubert* stage infected Dr. McDuff’s trial testimony—and Dr. Pachter’s “contribution” testimony on which Dr. McDuff relied—on this theory. *See* D.I. 341 at 33-40, 43-44. In fact, Dr. Pachter’s and Dr. McDuff’s trial testimony on this issue was even more superficial and conclusory than the opinions challenged at the *Daubert* stage. *See* Tr. Day 2 at 214:5-216:24 ([REDACTED])

[REDACTED]; Tr. Day 3 at 602:20-604:6 (Dr. McDuff’s testimony relying [REDACTED])  
[REDACTED]  
[REDACTED]  
[REDACTED]). For these reasons, his economic contribution analysis cannot provide any legally sufficient support for a damages award in this case.

#### **B. TwinStrand’s Comparable License Analysis Is Unreliable.**

Dr. McDuff’s “comparable license” analysis also lacks the reliability needed to support a damages award in this case. “[A]llegedly comparable licenses may cover more patents than are at issue in the action, include cross-licensing terms, [or] cover foreign intellectual property rights.” *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014). However, “[t]estimony relying on licenses must account for such distinguishing facts when invoking them to value the patented invention.” *Id.*; *see also Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1331 (Fed. Cir. 2009) (“Lucent did not explain how the fact that the Acer agreement involved eight patents affects how probative it is of the Microsoft–Lucent hypothetical

negotiation over one patent.”). Guardant raised these issues in its *Daubert* motion, and incorporates by reference those arguments here to avoid repetition. *See* D.I. 341 at 41-47; D.I. 402 at 21-23. The same errors infected Dr. McDuff’s trial testimony.

For instance, Dr. McDuff failed to make [REDACTED]

[REDACTED] *See* Tr. Day 3 at 634:3-645:21. But these “differences in circumstances *must* be soundly accounted for”; it is not enough to simply transpose a royalty rate from a comparable license onto the hypothetical negotiation. *Elbit Sys. Land and C4I Ltd. v. Hughes Network Sys., LLC*, 927 F.3d 1292, 1299-1300 (Fed. Cir. 2019) (emphasis added); *see also Omega Patents, LLC v. CalAmp Corp.*, 13 F.4th 1361, 1381 (Fed. Cir. 2021) (reversing admission of damages expert’s testimony because the patentee had failed to “me[e]t its obligation to ‘account for such distinguishing facts’ in invoking the licenses to value the [asserted] patent” (quoting *Ericsson*, 773 F.3d at 1227)). Dr. McDuff’s reliance on arbitrary assumptions about the patents in the comparable license and on Dr. Pachter’s vague assertions of technological comparability only made matters worse. *See* Tr. Day 3 at 645:22-652:1. Dr. McDuff’s license-related opinions are unreliable because he failed to soundly account for crucial differences between the comparable license and the hypothetical negotiation here.

Dr. McDuff’s methodological failures are especially glaring because the only license on which he could rely at trial did not include either asserted patent. *See VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1330 (Fed. Cir. 2014) (“[W]e have cautioned that ‘district courts performing reasonable royalty calculations [must] exercise vigilance when considering past licenses to technologies *other* than the patent in suit,’ *ResQNet*, 594 F.3d at 869, and ‘must account for

differences in the technologies and economic circumstances of the contracting parties,’ *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211 (Fed. Cir. 2010).” (alteration in original)).

Just like in *Apple Inc. v. Wi-LAN Inc.*, Dr. McDuff’s “methodological and factual errors in analyzing the comparable license agreements render his opinion untethered to the facts of this case.” 25 F.4th 960, 973-74 (Fed. Cir. 2022). Accordingly, that testimony cannot provide substantial evidence of damages here.

**C. TwinStrand Lacks Any Other Substantial Evidence of Damages.**

It was TwinStrand’s burden to prove damages, and it did not provide any reliable theory that could support a damages award. TwinStrand’s only evidence of damages came from its expert. Dr. McDuff’s failure to adequately account for significant differences between the Guardant-FMI agreement and the hypothetical negotiation yielded a damages opinion “untethered to the facts of this case.” *Apple Inc.*, 25 F.4th at 973-74. “[T]here can be an award of no damages where ‘none were proven.’” *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1291 (Fed. Cir. 2020) (quoting *Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F.2d 508, 509-10 (Fed. Cir. 1990)). As a matter of law, no damages should be awarded even if TwinStrand prevails on liability.

**D. At Most, Any Damages Should Be Limited to the Approximately \$3 Million Figure to Which Guardant’s Expert Testified.**

At the very most, TwinStrand’s damages should be limited to the approximately \$3 million figure that Guardant’s expert presented. Only Guardant’s expert accounted for the relevant economic and technological differences between comparable licenses and the hypothetical license. Most notably, [REDACTED]

[REDACTED]

[REDACTED]

██████████ While it was not Guardant's burden to provide *any* damages theory, Dr. Becker's approach is the only reliable damages analysis in the record. To the extent liability survives, JMOL of no damages greater than approximately \$3 million therefore should be entered.

## VII. CONCLUSION

TwinStrand failed to meet its burden of supplying substantial evidence of infringement, willfulness, or damages. As a result, this case should not proceed to the jury on any issue, and JMOL should be entered in Guardant's favor. At a minimum, the accused Guardant services and revenue from those services should be removed from the case before it goes to the jury.

Dated: November 13, 2023

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**CERTIFICATE OF SERVICE**

I, Jeff Castellano, hereby certify that on this 13<sup>th</sup> day of November, 2023, a copy of  
**DEFENDANT GUARDANT HEALTH, INC.'S BRIEF IN SUPPORT OF ITS MOTION  
FOR JUDGMENT AS A MATTER OF LAW PURSUANT TO FEDERAL RULE OF CIVIL  
PROCEDURE 50(a)** was served upon the following counsel of record via electronic mail:

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